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UNION OF SOUTH AFRICA

REPORT

OF THE

COMMITTEE OF INQUIRY

INTO THE

PROBABLE CLOSING DOWN OF THE ROODEPOORT UNITED MAIN REEF G.M. CO., Ltd.

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To the Government Mining Engineer,

Johannesburg.

Sir,

On 10th June, 1920, you informed us that, under instructions from the Honourable the Minister for Mines and Industries, we were constituted a Committee to inquire into the probable closing down of the Roodepoort United Main Reef Gold Mining Company, Limited, and that the terms of reference were :—

To inquire into and report upon :

I.—The Immediate Causes of the Closing Down of the Mine.

II.—Whether Continued Working is Practicable, and, if so, what Steps should be Taken to Enable it to Continue.

III.—Whether Adjacent Mines will be Affected by Closing Down.

We have made inquiry by examination of plans, reports, and statistics by inspection of portions of the mine workings, and by taking evidence from those witnesses whom the Committee saw fit to call and those who tendered evidence. We have had every possible assistance from officials of the mine, and from the General Mining and Finance Corporation, which controls the Company.

A report on the position of the Company by Mr. A. C. Sutherland, Chief Government Mine Surveyor, which you supplied to us, has greatly assisted us in our inquiry.

We have to report as follows :—

HISTORY OF MINE.

The property is situated on the farm Roodepoort No. 43. It is bounded on the north by ground not held under mining title, on the west by the Princess, Durban Roodepoort, and Durban Roodepoort Deep Mines, on the south by the Fleur de Lys and Great Britain, and on the east by the Vogelstruis Deep and Vogelstruis Mines.

All the mines mentioned, with the exception of the Durban Roodepoort Deep, Ltd., mine, are at present closed down.

The areas held by the Roodepoort United Main Reef G.M. Co., Ltd., are :—

No. 3 Section.....	35·5 claims.....	20·4	on reef.
United Section.....	111·7 „	103·4	„
Kimberley (including Main and East)...	402·3 „	337·8	„

The No. 3 and United sections are fully developed on the South Reef, which is the principal gold producer. The Main Reef in these sections has been developed where there was hope of payability. Practically all the payable block ground has been exhausted, the only ore remaining to be mined consisting of pillars.

In the Kimberley Section approximately 220 claims are still intact.

The Company was formed in November, 1887, but it is unnecessary to consider its history prior to 1909, when it acquired the property and assets of the Roodepoort G.M. Company, Ltd. In that year its capital was increased from £310,000 to £460,000 by the issue of 150,000 new shares, and further funds were provided by the issue of 15,000 reserve shares. Of the above 165,000 shares, 52,000 were issued in part payment to the Roodepoort Gold Mining Company, and 113,000 were issued at 32s. 6d., producing cash to the amount of £183,625.

Heavy expenditure in 1909 and 1910 on mine equipment and development, including erection of a new mill, caused a deficit which was met by advances from the General Mining and Finance Corporation.

From 1909 onward (as shown in Annexure 1, attached to this report) the Company made working profits totalling £220,704 in the years 1909, 1910, 1911, 1912, and 1916, and losses totalling £95,843 in the years 1913, 1914, 1915, 1917, 1918, and 1919.

The principal working results, including output, labour employed, and working costs during the above period, and up to May, 1920, are shown in Annexure 2.

The position of the Company at the end of April last was that it owed £373,305 to the General Mining and Finance Corporation : that, apart from reclamation ore, its "payable" ore reserves, based on a limit of 6·03 dwts. were 57,270 tons, averaging 7·08 dwts. over 40 inches ; that only seventeen stope faces, capable together of yielding between 1,000 and 5,000 tons of ore per month were payable, and that the ore in the unworked claims to the dip of the workings, though much of the South Reef probably would be payable judging by the indications in the lowest workings, could not be developed and mined without heavy capital expenditure in shaft-sinking and equipment.

REFERENCE I. THE IMMEDIATE CAUSES OF THE CLOSING DOWN OF THE MINE.

There are three main causes for the imminent closing down of the mine.
They are :

(1) Increase in costs since the commencement of the war.

(2) Exhaustion of the richer and more easily worked sections of the mine near the outcrop and difficulties of working met with in the lower levels.

(3) Delays to development since the heavy floods in the earlier part of 1918

(1) *Increase in Costs since the Commencement of the War.*

In 1914, the first year of the war, the average working costs per ton milled were 16s. 11d., since which time a steady increase has taken place, the costs in 1919 averaging 21s. 5d., equivalent over the period mentioned to a rise of 4s. 6d. (*Vide* Annexure 2.)

The increase is accounted for by extra pay to whites to enable them to meet the higher cost of living and extra cost of stores, holiday leave and systematic timbering. Further reasons for the rise in costs are the additional expenditure on pumping due to the greater depth from which pumping had to be carried out, and to water from the Vogelstruis Estate Mine overflowing into the Kimberley East workings and also the additional cost of phthisis compensation under the new Act. As a result of the increased costs, much of the ore that formerly was payable, notably as regards the low grade Main Reef, became unpayable, and the ore reserves were seriously depleted in consequence.

This position was relieved by the receipt of the gold premium towards the latter part of 1919, and, at one time, when gold was realizing 127s. 6d. per fine oz. the mine was actually earning profits. Since that time, however, the price of gold has dropped from 127s. 6d. to 103s. 6d. which affects the monthly revenue to the extent of some £6,000, and the bank rate of exchange has been increased from $7\frac{3}{4}$ per cent. to $8\frac{1}{2}$ per cent. which further affects the Company to the extent of an additional £2,200 per month. Not only this, but since the beginning of the year further advances in pay have been granted to whites and natives, costing respectively £1,400 and £600 per month, the net result being that working costs have increased so rapidly (*vide* Annexures 3 and 4) that the net value of the existing gold premium amounting to approximately £2,000 per month is more than counterbalanced by the recent rise in costs, and the bulk of the ore reserve declared at the end of 1919 has had to be classified as unpayable, the actual tonnage of payable ore remaining at the end of April last being only 57,270 tons at 7·08 dwts. (*Vide* Annexure 5.)

From the above statement, it will be seen that, to keep abreast of the exhaustion of the ore reserve, due to the rise in costs alone would have required an amount of development which would have been altogether impracticable.

The increased costs, therefore, have made working, even without regard to the depletion of the ore reserves, unprofitable, and from last February onwards there have been monthly losses as shown below :–

Month	*Loss.*
February	£3,223
March	5,234
April	6,503
May	2,483

(2) *Exhaustion of the Richer and more easily worked Sections of the Mine near the Outcrop and difficulties of working met with on the Lower Levels.*

The facts that the Company has paid no dividends since June, 1910, and that it was indebted to the General Mining and Finance Corporation for £249,759 at the end of 1910 and £259,250 at the end of 1913 show that its difficulties are not all of recent origin.

United and No. 3 Sections.

In its early days the Company obtained good ore from the United and No. 3 Sections, but, as the richer South Reef was exhausted and native labour became scarce, work was either stopped or greatly restricted in those sections and the mine was unable to keep the mill fully supplied with ore. In 1914, it was decided to change the mining policy and to mill a large percentage of the lower grade Main Reef, thus bringing up the total tonnage. In consequence, the No. 3 Section and the No. 2 shaft of the United Section which had been closed for some years were reopened.

From that date up to 1917, the United and No. 3 Sections supplied a considerable quantity of ore from Main Reef and South Reef reclamation at a relatively low cost, but in 1917, owing to shortage of native labour both sections were again closed down and were reopened only in 1919, when, owing to the rise in costs and delays to development, there was a shortage of payable stope faces in the Kimberley Main Section.

At the present time the payable reef in the United Section is practically exhausted, and this section is supplying reclamation rock which barely pays for the immediate cost of extraction and treatment without contributing to the general standing charges.

(Annexure 8.)

The No. 3 Section also supplies reclamation ore only. This ore is drawn mostly from stope pillars and boundary pillars, and is of considerably higher value than that obtained from the United Section.

The practical exhaustion of the United Section with approaching exhaustion of the No. 3 Section, could only be compensated for by increased tonnages or higher values from the Kimberley Main and Kimberley East Sections, neither of which have been obtained.

Kimberley East Section.

The Kimberley East Section is bounded on the west by a large dyke, which separates it from the Kimberley Main Section, and on the east by the boundary of the Vogelstruis Estates Mine, which was closed down as unpayable some years ago.

On the dyke the reef is faulted about 500 ft. to the south, relative to the reef in the Kimberley Main Section, and there is no connection between the workings of the two sections, though a crosscut on the 14th level of the Kimberley Main, which corresponds approximately with the 9th level of the Kimberley East is within 42 ft. of connection.

The Kimberley East section has been developed down to the 9th level, but little payable ore has been found below the 7th level.

At the present time no payable block ground exists in this section, but there still remains a small quantity of low grade ore which is available for reclamation.

The section has always been relatively small, and the falling off in the tonnage of payable ore mined from it, owing to exhaustion of the upper levels, and low values met with below the 7th level has added to the difficulties of the mine.

Kimberley Main Section.

In the Kimberley Main Section unlike the other areas of the mine, it is probable that much ore which would be payable under normal conditions remains undeveloped.

Owing to recent increases in costs, little Main Reef can be considered payable, but, in the lowest workings, the South Reef maintains its grade and there are approximately 220 claims remaining intact at greater depth.

The section has never been highly profitable, the grade and width of ore being insufficient to outweigh the mining difficulties met with. The dip which averages about 45 degrees is an awkward one, and the ground is faulted. The steepness of the formation makes it necessary to drive levels closer together than would be required were it flatter, and has made this section always an unpopular one with both whites and natives.

The difficulties above referred to have been accentuated in recent years with increased depth. The general dip has not only steepened, but also has been interrupted by many "rolls," the reef flattening out and then turning down again, almost or quite vertically. The rock has become very hard in the South Reef workings in which it has been necessary to concentrate work. The South Reef is in most places "frozen" on to the hanging, and, therefore, a shot hole breaks less reef and more waste than it otherwise would do, while there is increased risk of the hanging wall being broken, which means that more timber must be used for hanging wall support.

The hard rock recently encountered has added to the unpopularity of the Kimberley Main Section with natives, which is particularly serious, as, owing to the small reef widths and the nature of the hanging wall, hand drilling has to be relied upon almost entirely in the stopes. Very few voluntary boys work there, though the other sections are worked by time-expired boys who have elected to re-engage on condition that they are not put in the Kimberley Main. As the native labour force for the Kimberley Main is maintained by allotments of natives who have not selected their mines, many are unsuited for the work of a hammer boy, but have to be employed. At the present time there are about 150 inefficients. In the circumstances, the underground efficiency is low and is falling.

The Kimberley Main hoisting shaft is 3,940 feet deep on the incline and dips at 43 degrees for the upper 3,000 feet, and 60 degrees for the remainder. The hoisting capacity of the shaft is sufficient for the tonnage, but as it is the only shaft serving the section, any stoppage such as occurred in April from decay of timber and fall of hanging wall must involve serious loss.

The shaft which has not been sunk since 1915, except for 22 feet early in 1917, to give room for large skips at the lowest box, has reached the limit of depth to which it is practicable to carry it.

A small three compartment subsidiary shaft with two 1-ton skipways and a ladderway has been sunk for 327 feet from the 20th level, so that a total depth of 1,117 feet on the incline from the outcrop has been reached. The subsidiary shaft was sunk partly as a prospecting shaft to test the dip of the reef before commencing the sinking of a main sub-incline, and it was intended to use it subsequently as a cageway for men and materials. Hoisting in the subsidiary shaft and handling of rock and materials between the shafts has naturally increased the costs of recent mining in the lower levels above what they would have been on levels served directly by the main incline.

It will be seen from the above that increasing depth has, directly and indirectly, added to the costs of mining in the Kimberley Main Section.

(3) *Delays to Development since the Heavy Floods in the earlier part of* 1918.

At about the depth reached by the Kimberley Main workings, the width between the western boundary of the property and the dyke which forms the eastern boundary of the section, is approximately 2,000 feet. As of that width 100 feet is occupied by a dyke, only 1,900 feet length can be developed on each reef on each level. Owing to the relatively small lateral extent of the section, and narrowness of the reef, a large amount of shaft-sinking must be done in proportion to the tonnage developed, and unless shaft-sinking is kept ahead points of attack for driving levels are not available. The manager calculates that in order to keep up even the small monthly tonnage of 24,200 tons from the Kimberley Main, two subsidiary shafts, each sinking 80 to 90 feet per month and 1,400 to 1,500 feet per month of other development would be required.

As has been indicated the Kimberley Main shaft practically reached its limit in 1915. The 20th level drives are the lowest which can be driven from it. At the end of 1917, the ore reserves in the section, on the basis of a pay limit of 4·9 dwts., consisted of 139,739 tons of Main Reef valued at 5·7 dwts.; and 237,632 tons of South Reef valued at 8·1 dwts. (unreduced sampled values).

In February, 1918, extraordinarily heavy rains caused flooding of the lower portions of the mine to the 19th level, leaving only two development drives working. A suitable pump to deal with the contingency was not obtainable locally and was ordered from Europe. Due to the war, delivery was seriously delayed and though baling and air pumps were resorted to, it was October, 1919, before the subsidiary shaft was clear of water. Development had greatly suffered in the meantime (*vide* Annexure 6) and the ore reserves in the section, calculated on the standard price of gold had fallen at the end of 1919 to 18,545 tons on the Main Reef at 5·1 dwts. on a pay limit of 4·7 dwts., and 123,986 tons on South Reef at 6·59 dwts. on a pay limit of 5·3 dwts.

Development was resumed as soon as it became practicable, but it was not at any time carried on at a rate nearly sufficient to counterbalance the depletion of reserves due to the rise in costs, there being an insufficient number of available points of attack.

It was intended to work the ground remaining below the 20th level of the Kimberley Main Section through two subsidiary inclines, but in view of the rise in costs and apparently hopeless position of the mine that scheme was abandoned. This decision made early closing of the mine inevitable, but we are of opinion that, in view of the large capital expenditure which would have been involved and the poor prospects of return on that expenditure no other decision was reasonably possible.

Development in the Kimberley East Section also suffered severely from flooding during 1918 which stopped work on the 9th level, and, before that level was cleared, overflow from the abandoned Vogelstruis Mine entered at a connection between the 2nd and 3rd levels at the rate of over 3,000,000 gallons per month, flooding the section to above the 8th level. This stopped all development in the section, which, however, did not materially affect the position, since the grade on the lower levels was almost invariably below the limit of payability.

REFERENCE II.—WHETHER CONTINUED WORKING IS PRACTICABLE, AND, IF SO, WHAT STEPS SHOULD BE TAKEN TO ENABLE IT TO CONTINUE.

After discussion with the Union officials and the mine employees a drastic retrenchment scheme was put into operation on 9th June. It involved the discharge of fifty-two whites, viz., sixteen officials and thirty-six workmen. All development was stopped except two rises. On the assumption that there will be no loss of tonnage, a saving of £3,130 per month is estimated.

Should that estimate be realized which is by no means certain, and should no untoward event occur, such as greater reduction in the gold premium than the bank rate the mine may continue working for three of four months.

Evidence was given at the inquiry on behalf of the underground employees that the prospects might be improved by resumption of development, use of jackhammers, and by a system of early morning stope examination and shovelling of broken ore (lashing) such as is in force in the adjoining Durban Roodepoort Deep Mine. We are of opinion that nothing is to be gained by adoption of these proposals. There are no development faces which can be advanced so as to develop payable ground immediately, and the cost of dead work would destroy the precarious chance of the gold recovery balancing costs. Jackhammers have been tried unsuccessfully on the mine in the past, and it cannot be seen that the early "lashing" would be of economic advantage unless the hammer boys were kept at work beyond the eight hours permitted by law, as they are already under contract to do two hours "lashing." The mine management is permitting the advocate of jackhammers to try them in one of his working places.

So far as we are able to determine the mine is being worked with economy under efficient management, and we consider that no change in this direction could save the position.

Furthermore, we are of opinion that, beyond the few months during which the scheme now being tried may possibly cover working expenditure, it is impracticable to continue operations at the mine.

In order to work the ground remaining intact in the Kimberley Main Section a vertical shaft about 4,000 feet deep would be a practical necessity. It would cost, say, £200,000, and would take approximately three years to sink the shaft, and still much capital expenditure and time would be required for connection with the existing workings and for development. Under present conditions and with the past history of the mine in view, no one could be expected to supply the necessary capital, and even if the capital for the shaft and development were available, the existing mine could not be kept working until the new shaft would come into use.

Even the relatively inefficient scheme of sinking sub-inclines, if immediately embarked upon, would be too late to permit of development being done in time to avoid stoppage of milling for several months, and would require over £100,000 capital expenditure which is not available, and which no one can be expected to provide under the circumstances.

The prospects of any portion of the mine being worked by tributors when the Company ceases work has been considered. There seems no chance of tribute work in any section but the No. 3. No payable ore remains in the United and the ore in the Kimberley East and Main Sections is nearly all too low grade for tributors. If the scheme of working now being tried fails, and work stops almost immediately, sufficient ore may remain in No. 3 to tempt a tributor, but if work continues for a few months that will not be the case.

REFERENCE III. WHETHER ADJACENT MINES WILL BE AFFECTED BY CLOSING DOWN.

The Kimberley Main Section pumps about 3,500,000 gallons of water per month. The excavations below the 16th level, where the workings connect with the Durban Roodepoort Deep Mine will hold about 38,000,000 gallons, so that in approximately eleven months after the Roodepoort United pumps stop, water, at the mean rate of about 3,500,000 gallons per month will enter the Durban Roodepoort Deep Mine.

SUMMARY.

Briefly stated, the position is as follows :—

The mine has been failing owing to exhaustion of the easier worked and richer ore since 1910, when it ceased to pay dividends, and, more markedly since 1916, when the payable ore reserves began to diminish. Development footage has fallen from 1917 onwards. The rise in costs since the commencement of the war hastened diminution of the ore reserves by rendering previously payable ore unpayable. In 1918, abnormal rains caused portions of the mine to be flooded and delayed development for several months, during which there was a still further depletion of ore reserves. By the time the mine was cleared of water, conditions were such that the only chance of saving it was adoption of a vigorous policy of shaft-sinking and development which would have involved large capital expenditure on the work itself, and in making good working losses before that development could be fully effective. It was, in our opinion, justifiably decided not to incur that capital expenditure, and, by this decision, the relatively early closing down of the mine was made inevitable. There then remained only the extraction of the ore developed, and of such additional ore as could be obtained by advancing the drives without further shaft-sinking. Even that work became unprofitable in February of this year, owing to the still further increase in costs, and whether the mine closes down almost immediately or a few months hence depends on the failure or success of an attempt now being made through a drastic retrenchment scheme to reduce costs without lessening tonnage.

There is no practical way of continuing working the mine.

About eleven months after the Roodepoort United closes, the Durban Roodepoort Deep G.M. will receive water at the rate of about 3,000,000 gallons per mensem, now pumped by the Roodepoort United.

We have the honour to be,

Sir,

Your obedient servants,

C. J. GRAY.
ERROL HAY.
C. J. TUTT.

9th July, 1920.

Annexure 1.

ROODEPOORT UNITED MAIN REEF G.M. CO., LTD.

Table to Show Profits and Costs since 1909.

Year.	Revenue, including Sundry Revenue.	Working Costs, including Interest, etc.	Profit.	Loss.	Dividends.
	£	£	£	£	£
1909	319,810	231,852	87,958	–	80,500
1910	272,777	250,222	27,554	–	23,000
1911	400,791	340,153	60,638	–	–
1912	368,170	345,404	22,766	–	–
1913	288,657	298,774	–	10,117	–
1914	312,967	318,919	–	5,952	–
1915	372,266	374,586	–	2,320	–
1916	417,965	394,177	23,788	–	–
1917	379,694	382,489	–	2,795	–
1918	297,487	350,616	–	53,129	–
1919	304,330	315,860	–	21,530	–

Annexure 2.

ROODEPOORT UNITED MAIN REEF G.M. CO., LTD.

Working Results Since Final Amalgamation in 1909.

Year.	Output.	Persons Employed.		Output per Person Employed, per Annum.		Tons Milled.	Working Cost per Ton Milled.
		White.	Coloured.	White.	Coloured.		
	Ozs.						s. d.
1909	74,963	235	2,327	315	31·8	212,197	21 0
1910	62,993	288	2,899	219	21·7	250,642	18 11
1911	93,871	250	2,665	375	35·2	366,490	17 3
1912	86,278	273	2,849	316	30·3	362,439	18 0
1913	67,189	231	2,415	292	27·9	303,852	18 0
1914	73,441	262	2,495	280	29·4	351,002	16 11
1915	88,329	271	3,224	326	27·4	408,086	17 3
1916	98,519	291	3,258	338	30·2	412,845	17 10
1917	89,817	241	3,224	373	27·9	357,113	20 0
1918	69,653	227	2,914	307	23·9	286,303	22 8
1919	63,715	213	2,491	299	26·5	279,500	21 5
1920 (Jan.)	5,155	197	2,255	314	27·6	22,700	23 0
1920 (Feb.)	4,189	199	2,458	272	20·4	18,600	28 5
1920 (Mar.)	4,957	200	2,530	297	23·5	22,200	26 7
1920 (Apr.)	4,519	208	2,486	260	21·8	20,800	27 1

Annexure 3.

ROODEPOORT UNITED MAIN REEF G.M. CO., LTD.

Details of Working Costs from 1919 to April, 1920, inclusive.

Per Ton Milled.

Heading of Expenditure.	1919.	First Quarter, 1920.	April, 1920.
	s. d.	s. d.	s. d.
Mining	13 0	15 7	16 10
Reduction	3 10	4 6	4 5
General	2 4	3 4	3 7
Head Office	0 3	0 4	0 3
Development Redemption	2 0	2 0	2 0
Totals	21 5	25 9	27 1

Annexure 4.

ROODEPOORT UNITED MAIN REEF G.M. CO., LTD.

DETAILS OF WORKING COSTS FROM 1919 TO APRIL, 1920, INCLUSIVE.

Total Amounts.

Heading of Expenditure.	1919.	First Quarter, 1920.	April, 1920.
	£	£	£
Mining	181,026	49,714	17,455
Reduction	54,405	14,316	4,602
General	32,718	10,671	3,760
Head Office	4,050	955	275
Development Redemption	27,690	6,350	2,080
TOTALS £	299,889	82,006	28,172

Annexure 5.

ROODEPOORT UNITED MAIN REEF G.M. CO., LTD.

PARTICULARS *re* ORE RESERVE.

Year.	Payable Ore Reserves at end of Year.		Pay Limit.	Unpayable Ore.	
	Tonnage.	Value.		Tonnage.	Value.
		Dwts.	Dwts.		Dwts.
1910	617,735	5·47	—	551,945	2·70
1911	448,800	5·49	—	533,900	2·88
1912	379,283	5·08	4·0	368,665	2·36
1913	370,732	5·30	4·5	476,101	2·16
1914	590,000	5·92	4·3	160,214	2·30
1915	720,309	5·90	4·3	292,101	2·38
1916	677,273	6·03	4·15	356,748	2·30
1917	526,256	6·85	4·9	291,468	2·60
1918	223,041	6·02	4·9	560,747	3·20
1919	175,673	6·10	(S.R. 5·3) (M.R. 4·9)	551,483	3·10
1920	57,270	7·08	(S.R. 6·03)	673,989	3·60

Annexure 6.

ROODEPOORT UNITED MAIN REEF G.M. CO., LTD.

PARTICULARS *re* SHAFT-SINKING AND DEVELOPMENT.

YEAR.	SHAFT-SINKING.					DEVELOPMENT FOOTAGE.		
	K.M.I.	K. East.	K.M. Sub.	No. 3.	United.	S. Reef.	M. Reef.	Total.
1910	—	251	—	—	—	4,310	6,711	11,021
1911	807	194	—	—	—	6,157	8,814	14,971
1912	719	389	—	—	—	13,204	7,043	20,247
1913	499	414	—	—	—	12,888	2,986	15,874
1914	150	235	—	—	—	7,271	7,736	15,007
1915	101	—	—	—	—	9,378	7,492	16,870
1916	—	—	—	119	—	8,855	9,954	18,809
1917	22	21	115	70	—	6,350	8,480	14,830
1918	—	—	50	—	—	5,066	3,463	8,529
1919	—	—	50	—	—	2,626	551	3,177
1920 (April)	—	—	27	—	—	214	66	280

Annexure 7.

ROODEPOORT UNITED MAIN REEF G.M. CO., LTD.

Source of Ore Mined.

Year.	Stopes.	Reclamation.	Development.	Total.
1910	*	*	*	286,906
1911	*	*	*	441,894
1912	*	80,000	*	432,381
1913	200,816	124,809	27,630	353,255
1914	261,430	94,249	32,111	387,790
1915	396,045	27,259	25,513	448,817
1916	413,926	20,737	23,597	458,260
1917	351,184	19,072	22,092	392,648
1918	248,741	23,807	19,330	291,878
1919	115,016	149,663	12,032	276,711
1920 (January)	7,980	13,154	1,577	22,711
1920 (February)	8,673	9,023	1,105	18,801
1920 (March)	*9,279	11,550	1,400	22,229
1920 (April)	9,099	10,800	1,315	21,214
1920 (May)	9,727	12,320	1,471	23,521

* Figures unobtainable.

Annexure 8.

ROODEPOORT UNITED MAIN REEF G.M. CO., LTD.

Source of Ore from Reclamation—May, 1920.

Section.	Reef.	Tonnage.	Tonnage from Section.	Value.
				Dwts.
Kimberley Main	Main	1,366		
	South	3,909	5,275	4·1
United	Main	477	—	
	South	3,325	3,802	3·3
No. 3	Main	225	—	
	South	3,018	3,243	5·1
Total and Average			12,320	4·1

JC SOUTHERN REGIONAL LIBRARY FACILITY
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